

REMARKS AND ARGUMENTS

Election/Restrictions

The Examiner is correct in that a clerical error was made in the REMARKS section of the Preliminary Amendment filed on 3/21/04. Therein, Applicants listed the wrong parent application number. The present application is a divisional from Patent Application No. 09/528,262.

In response to a species restriction in the Office Action dated 7/9/03 in the prosecution of the parent application, Applicants have elected to proceed in the current divisional application with those claims pertaining to the invention of "Species IB" (as designated by the Examiner): "LED's having a substrate that contains impurities in separate color centers."

It is noted that Applicants believe that the Examiner's statement in paragraph (e) on page 2 of the Office Action dated 11/09/04 includes a clerical error. The Examiner's statement reads: "As such, **claims 11-13 and 19 are withdrawn from the further consideration for being directed towards the non-elected invention IB.**" (Emphasis in original). Applicants assume that the Examiner meant to specify the non-elected invention as "Species IA." Applicants thus proceed under this assumption.

Per the Examiner's restriction requirement or for other reasons, Applicants have withdrawn claims 11-13, 19-22 and 48-51 as well as those noted by the Applicants in the Preliminary Amendment. Claims 32 and 45 have also been withdrawn as they depend from withdrawn claims.

To summarize, claims 1-3, 8, 16-18, 23, 25-29, 43, 44, 52 and 53 are under active consideration.

Priority

The Examiner asserts that Applicants have not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. § 120, specifically that the current application "adds and claims additional disclosure not presented in the prior application (see claim 45)." Applicants do not agree with the Examiner's findings but submit that the assertion is moot as claim 45 has been withdrawn. Thus, Applicants respectfully request the benefit of the earlier filing date of the prior application.

Claim Objections

Claim 10

The Examiner has objected to claim 10 under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 10 has been cancelled, rendering the Examiner's objection moot.

Claim 45

The Examiner has objected to claim 45 for being dependent from a withdrawn claim. Claim 45 has been withdrawn, rendering the Examiner's objection moot.

Drawings

The Examiner has objected to the drawings under 37 CFR 1.83(a), asserting that "the features of the FIG 2 and FIG 5 embodiments, combined into a single device as set forth in claim 45, must be shown or the features(s) canceled from the claim(s)." Applicants have withdrawn

claim 45, rendering the Examiner's objection to the drawings moot.

Specification

The Examiner has objected to the specification under 37 CFR 1.75(d)(1) and MPEP § 608.01(o) as failing to provide a proper antecedent basis for the claimed subject matter. Specifically the Examiner states, "the specification does not set forth the features of the FIG 2 and FIG 5 embodiments, combined into a single device as set forth in claim 45." Applicants have withdrawn claim 45, rendering the Examiner's objection moot.

Claim Rejections - 35 USC § 112

The Examiner has rejected claim 45 under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making LEDs according to either of the embodiments depicted in FIGs 2 and 5 individually, does not reasonably provide enablement of an LED that simultaneously incorporates the embodiments of FIGs 2 and 5. Applicants have withdrawn claim 45.

Claim Rejections - 35 USC § 102

Claims 1-3, 8, 10, 16, 18, 25-29, 43, 44 and 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto, JP '203 (hereinafter "Matsumoto"). Claims 1-3, 8 and 23 have been canceled herein. Applicant reserves the right to pursue these claims in a divisional or continuation application. Claim 18 has been rewritten in independent form to include the limitations of the claim 1.

Regarding the remaining claims 16, 18, 25-29, 43 and 52, "A claim is anticipated only if each and every

element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d. 1051, 1053 (Fed. Cir. 1987). The remaining claims include limitations to the substrate having separate color centers, each of which absorbs UV light and re-emits a different color of light. Claims 16 includes the additional limitation of the active layer being controllable such that said active layer can emit primarily over a selected one or more of said color centers. Claims 44 and 52 include the limitation of applying a bias to a portion of the active layer above the color centers. Claim 25 includes that limitation of selectively applying at least a portion of said optical emission to one or more of said separate impurity color centers.

The Examiner cites paragraph [0014] of Matsumoto and states that Matsumoto teaches:

"UV emitting, GAN-based LED formed on transparent substrates such as sapphire. Portions of the substrate may be doped with various transition and/or rare earth elements such that the substrate emits secondary color(s), and may be used in a full color display, indicating that the emission of the active layer is controllable such that it emits primarily over a selected one or more 'color centers'."

Applicant respectfully submits that the paragraph cited by the examiner does not teach "color centers" or "a controllable active layer" as provided in the claims. Matsumoto provides no drawings showing a substrate with color centers and makes no reference to color centers. Instead Matsumoto only states that "using a single

substrate to form of plurality of lighting emitting units." This ambiguous statement can mean many different things, but certainly does not set forth the color center claim element. Furthermore, there is no mention in Matsumoto of the active layer being controllable as provided in claims 16, 25, 44 and 52.

As stated in prosecution of the parent case, For a reference to anticipate a claim, it must teach every aspect of the claimed invention either explicitly or impliedly. MPEP § 706.02. "[A] § 102(b) reference must sufficiently describe the claimed invention to have placed the public in possession of it . . . [E]ven if the claimed invention is disclosed in a printed publication, that disclosure will not suffice as prior art if it was not enabling." Paperless Accounting, Inc. v. Bay Area Rapid Transit Sys. 804 F.2d 659, 665, 231 USPQ 649, 653 (Fed.Cir, 1986). "An enabling disclosure is not 'tossing out the mere germ of an idea' but the provision of 'reasonable detail . . . in order to enable members of the public to understand and carry out the invention.'" United States Filter Corp. v. Ionics Inc., 68 F.Supp.2d 48, 65, 53 USPQ2d 1071, 1085 (D.Mass 1999).

In this case there is no enabling disclosure to anticipate these claims and Applicant respectfully submits that Matsumoto fails to toss out even a "mere germ of an idea." Applicant submits that claims 16, 18, 25-29, 43 and 52 are allowable over Matsumoto and respectfully request that the Examiner withdraw the rejection of these claims.

Claim Rejections - 35 USC § 103

Claims 1-3, 8, 10, 16, 18, 25-29, 43, 44 and 52

The Examiner rejected claims 1-3, 8, 10, 16, 18, 25-29, 43, 44 and 52 under 35 U.S.C. 103 as being unpatentable over Matsumoto, JP '203 (hereinafter "Matsumoto") and further in view of Bojarczuk et al. '185. As mentioned above, claims 1-3, 8 and 23 have been canceled herein.

The examiner noted that Matsumoto does not expressly state how the structural details of how such a full color display is specifically formed. The examiner then cites FIG. 8 of Bojarczuk to provide the missing structural details from Matsumoto and to conclude that Matsumoto is enabling.

Applicant submits that this type of reasoning is improper for concluding that the claims are unpatentable. Applicant agrees that Matsumoto fails to disclose the elements of the claimed invention, but Bojarczuk does not help remedy this defect in Matsumoto. Bojarczuk discloses a structure that is different from the claimed invention such that it cannot be combined with Matsumoto to reject the claims. Bojarczuk does not disclose color centers in the substrate, but instead discloses "blue, green and red organic dyes" (94, 96, 98) that are deposited on the substrate through a shadow mask placed in proximity with the substrate (col. 6, lines 12-19). Furthermore, Bojarczuk does not disclose "a controllable active layer" but instead discloses separate active layers 78 separated by trenches 80. Each of the active layers are arranged over a respective one of the organic dyes.

Applicant respectfully submits that Matsumoto and Bojarczuk cannot be combined to disclose, teach or suggest the elements of the rejected claims claims 16,

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18, 25-29, 43 and 52, and that these claims are allowable.

Claims 17, 23 and 53


The Examiner rejected claims 17, 23 and 53 under 35 U.S.C. 103 as being unpatentable over Matsumoto, JP '203 (hereinafter "Matsumoto") and further in view of Bojarczuk et al. '185. Claims 23 has been canceled herein. Claims 17 and 53 depend from allowable claim 16, and are also allowable.

CONCLUSION

Applicant submits that claims 16-18, 25-29, 43, 52 and 53 are in condition for allowance, and applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

May 9, 2005



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